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NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2003

REPORT

[TO ACCOMPANY S. 2514]

ON

AUTHORIZING APPROPRIATIONS FOR FISCAL YEAR 2003 FOR MILITARY ACTIVITIES OF THE DEPARTMENT OF DEFENSE, FOR MILITARY CONSTRUCTION, AND FOR DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEAR FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

TOGETHER WITH

ADDITIONAL AND MINORITY VIEWS

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

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Report on Theater High Altitude Air Defense (THAAD) program (sec. 224)

The committee recommends a provision that would require the Secretary of Defense to submit to Congress by January 15, 2003, certain types of programmatic information for the THAAD program which are required by sections 2431 and 2432 of title 10 of the United States Code for all major defense acquisition programs and are critical to congressional understanding and oversight. The information required by this provision for THAAD would be the same as required by section 222 for the Midcourse Defense program.

THAAD is a well established program which the Department of Defense has stated could be ready for "contingency deployment" within the next few years and for which more than $900.0 million has been requested in fiscal year 2003. No detailed information on the plans for this program, however, has been submitted to Congress in either the fiscal year 2002 or 2003 budget submissions.

Section 232 of the National Defense Authorization Act for Fiscal Year 2002 specifically required the Secretary of Defense to submit to Congress by February 1, 2002, the estimated total life cycle costs for each ballistic missile defense program which enters Engineering and Manufacturing Development (EMD). The Department has failed to provide such information for THAAD even though THAAD entered into EMD in calendar year 2000. In addition, the Department has failed to provide estimated total life cycle costs for THAAD despite repeated requests from Congress, including a letter to the Under Secretary of Defense for Acquisition, Technology and Logistics from the Committee on Armed Services chairman and the Strategic Subcommittee chairman requesting such information.

Therefore, the recommended provision would place a funding limitation on the THAAD program: no more than 50 percent of the amount authorized to be appropriated in fiscal year 2003 for THAAD may be expended until Congress has received the information required by the provision.

References to new name for Ballistic Missile Defense Organization (sec. 225)

In January 2002, the Secretary of Defense directed a reorganization of the Department's missile defense programs that included changing the name of the Ballistic Missile Defense Organization (BMDO) to the Missile Defense Agency (MDA). Therefore, the committee recommends a provision that would amend existing provisions of law to refer to the MDA vice the BMDO.

SUBTITLE D—IMPROVED MANAGEMENT OF DEPARTMENT OF DEFENSE TEST AND EVALUATION FACILITIES

The annual report of the Department of Defense (DOD) Director of Operational Test and Evaluation for fiscal year 2001 concludes that inadequate funding of DOD test and evaluation (T&E) infrastructure has led to inadequate testing of major weapons systems. The Director's report states:

> During the past decade while T&E infrastructure resources were being reduced, we witnessed an alarming

> trend of too many programs entering dedicated operational T&E (OT&E) without having completed sufficient developmental T&E (DT&E). As a result, the services have conducted OT&E on immature systems and the results reflect the consequences. In recent years, 66 percent of Air Force programs have stopped operational testing due to a major system or safety shortcoming. Since 1996, approximately 80 percent of Army systems tested failed to achieve reliability requirements during operational testing. * * * The acquisition process fails to deliver systems to the warfighter that meet reliability and effectiveness requirements.

In section 913 of the National Defense Authorization Act for Fiscal Year 2000, the committee required the Defense Science Board (DSB) to assess the resources and capabilities of the test and evaluation facilities of the Department of Defense. The DSB report, issued in December 2000, supports the Director's conclusion that the Department is no longer conducting adequate testing of weapon systems. The DSB report states:

> 1. Testing is not being conducted adequately—if systems are not adequately tested they enter the inventory with latent defects that can be very costly and can impact operational effectiveness.
> 2. A particularly shocking finding is that there is growing evidence that the acquisition system is not meeting expectations as far as delivering high quality, reliable and effective equipment to our military forces.
> 3. The lack of testing cannot be blamed on the lack of facilities; however, limited infrastructure is a contributor to the lack of interoperability testing.
> 4. There is an increasing incidence of test waivers.
> 5. The T&E process is not funded properly—in phasing or in magnitude
>
> a. Funds are not available early enough
>
> b. Corners are cut in the testing that is done[.]
>
> 6. There is not enough government oversight of testing done by industry. * * *
>
> It appears that we too often fail to carry out adequate testing. In those cases where the testing is adequate, we fail to take the corrective actions needed based on the results of that testing. In many cases, we allow our acquisition programs to proceed to their next phases, such as moving from development or technical testing to operational testing or moving from development into production and deployment with our combat forces, when the test results we have gathered clearly indicate the systems are not ready.

The committee believes that the Department of Defense has no greater duty than to ensure that the weapons systems that it puts in the hands of our soldiers, sailors, airmen and marines will operate as intended in combat situations. Adequate testing of weapons systems is not an abstract concept: lives depend upon it.

For this reason, the committee recommends a series of provisions to implement the recommendations of the Director of Operational Test and Evaluation and the report of the Defense Science Board task force on test and evaluation capabilities.

Department of Defense Test and Evaluation Resource Enterprise (sec. 231)

The committee recommends a provision that would establish a Department of Defense Test and Evaluation Resource Enterprise (T&E/RE), which shall report to the Director of Operational Test and Evaluation.

The Director of Operational Test and Evaluation stated in his annual report for fiscal year 2001:

> The current approach to managing the DOD T&E infrastructure is through centralized oversight by DOT&E and decentralized funding and management by the Military Departments and Defense Agencies. Funding and manpower levels for the individual ranges and centers are programmed by the owning service, even though the ranges may possess unique T&E capabilities which are used primarily by the other services and defense agencies. This approach has led to a reluctance by the owning service to fully fund and sustain some of these unique capabilities.

The Director noted that the establishment of a T&E/RE to address this problem was the "most significant recommendation" of the December 2000 report of the Defense Science Board task force on test and evaluation facilities. The task force explained this recommendation as follows:

> Extensive reduction in test facilities and personnel has been pursued during the last five years. Notwithstanding this necessary effort, unnecessary duplication of capabilities exists in all three services. * * *
>
> [The] unwillingness of the services to provide adequate resources for T&E [while] still maintain[ing] substantial redundant capabilities suggests that a change is needed.
>
> The fundamental concern of T&E facility managers is how [to] get enough money and manpower to continue their operations. They compete with other activities within their services for resources, and with other activities both within their Services and outside for "business" support. This does not lead to long-range business planning and, it is not possible for them to make investment decisions based on future utilization or business-like return on assets analyses. They have little control over the "business" they manage and are subject to highly variable budgeted support. * * * Centralized, consolidated management of T&E facilities within the Department of Defense could overcome many of these serious problems.

The provision recommended by the committee would implement the task force recommendation by establishing a centralized T&E/RE, which would report to the Director of Operational Test and Evaluation. Under this provision, funding for the investment, oper-

ation and maintenance, development and management of Major Range Test and Facility Base (MRTFB) facilities and resources would be transferred to the new T&E/RE. The T&E/RE would also be responsible for ensuring that test planning and test execution is conducted by the appropriate military service organizations. However, the day-to-day operation and management of the test ranges and facilities and the testing activities carried out at those ranges and facilities would remain in the hands of the military services.

The provision would require that the new T&E/RE be established within one year of the date of enactment. To ensure central oversight over investments in the MRTFB, the provision would require that the Director of Operational Test and Evaluation approve all investments of $500,000 or more during the one-year transition period.

Transfer of testing funds from program accounts to infrastructure accounts (sec. 232)

The committee recommends a provision that would transfer testing funds from the research and development programs of the military departments and defense agencies to the major test and evaluation investment accounts of the Department of Defense.

The Director of Operational Test and Evaluation stated in his annual report for fiscal year 2001:

> In the long run, increasing the tempo of testing will require a shift in our current practices for funding and managing test facilities and ranges. * * * At the present time, defense programs must bear both the cost of their tests and the overhead costs to maintain the ranges. This has proven to be a disincentive to testing. The cost to program managers has risen sharply over the past decade as they take on the overhead costs of the test ranges; as a result, program managers seek to minimize the amount (and therefore the cost) of testing. As they succeed, their success forces the price even higher for each test. * * *
>
> A recent analysis shows that about $2.4 billion in test costs (previously funded in the MRTFB [Major Range and Test Facility Base] institutional budgets) have been shifted to the users since FY90. Eighty-five percent of the shift occurred during the last five years.
>
> As institutional funds have fallen, the test ranges and centers have sought to recover more costs from users. The users, in turn, have reduced testing and accepted additional risk to remain within their budgets. Test adequacy has suffered as a consequence. In FY01, the MRTFB charged an estimated $250 million per year more to users than was charged to them prior to FY90. Effectively, this means that, although users in FY01 collectively paid the same amount as in FY90, they were doing less testing.

The committee provision would address this problem by shifting five-eighths of one percent of the budgets of the military departments and defense agencies for Demonstration and Validation, Engineering and Manufacturing Development, and Operational Sys-

tems Development (approximately $250.0 million) to the major test and evaluation investment accounts of the Department. The specific transfers would be as follows:

For the Army: from Demonstration and Validation to PE 64759A, $5.0 million; from Engineering and Manufacturing Development to PE 64759A, $18.0 million; from Operational Systems Development to PE 64759A, $6.0 million.

For the Navy: from Demonstration and Validation to PE 64759N, $15.0 million; from Engineering and Manufacturing Development to PE 64759N, $32.0 million; from Operational Systems Development to PE 64759N, $17.0 million.

For the Air Force: from Demonstration and Validation to PE 64759F, $9.0 million; from Engineering and Manufacturing Development to PE 64759F, $27.0 million; from Operational Systems Development to PE 64759F, $60.0 million.

For Defense-wide: from Demonstration and Validation to PE 64940D8Z, $37.0 million; from Engineering and Manufacturing Development to PE 64940D8Z, $8.0 million; from Operational Systems Development to PE 64940D8Z, $25.0 million.

The Committee expects that these transfers will not be implemented as an across-the-board reduction on programs undergoing demonstration and validation, engineering and manufacturing development, or operational development, but will instead be proportionally allocated to such programs on the basis of the projected test and evaluation costs to be paid by these programs.

The provision would also require the military services to change their funding policies to ensure that users of the MRTFB are charged only for the direct costs of testing and are no longer required to pay for overhead costs. The committee anticipates that the research and development programs of the Department should recover a significant portion of the funds transferred to the MRTFB investment accounts through lower overhead rates charged for testing at MRTFB facilities. However, any shortfall of funding resulting from this transfer should not be taken directly from testing budgets of the programs and shall not be used as a basis for reducing testing requirements for any system. On the contrary, the committee believes that the lower rates charged for testing at MRTFB facilities should lead to increased testing of Department of Defense systems.

The committee also recognizes that the elimination of indirect costs could lead to increased funding needs in test and evaluation accounts other than the investment accounts to which funds would be transferred by this provision. The committee urges the Department of Defense Comptroller, in consultation with the Director of Operational Test and Evaluation, to make any adjustments among the test and evaluation accounts of the Department of Defense and the military services that may be needed, pursuant to established procedures, to ensure that the test ranges and facilities of the Department are able to conduct required operations.

Increased investment in test and evaluation facilities (sec. 233)

The committee recommends a provision that would increase the amount authorized to be appropriated for the Central Test and

Evaluation Investment Program (CTEIP) of the Department of Defense (PE 64940D8Z) to $251.3 million, an increase of $128.0 million. The increase consists of $70.0 million transferred to the CTEIP program by section 232; $50.0 million added to the CTEIP program to increase the Department's overall level of investment in its test and evaluation facilities; and $8.0 million that would be made available for specific technology programs to support testing and evaluation, as described elsewhere in this report.

Overall, the $251.3 million total provided by the committee recommendations would more than double the amount of funding available in the CTEIP account and the transfers and increases made by this bill would more than double the funding available in the test and evaluation (T&E) investment accounts of the Department as a whole.

In his annual report for fiscal year 2001, the Director of Operational Test and Evaluation identified significant deficiencies in the Department's T&E infrastructure. The Director's report states:

> When the capabilities of the test ranges are compared with requirements for testing current and future systems, significant deficiencies are evident. They limit the ability to conduct adequate testing of weapons and support systems. Some of the more significant deficiencies are:
>
> Range infrastructure. * * * Miss distance and attitude measurement systems lack adequate fidelity. Instrumentation shortfalls include limited radar, telemetry, and optical equipment assets to support multiple simultaneous engagements and insufficient instrumentation to track multiple vehicles. There are no chemical-biological test chambers large enough to accommodate complete systems. A replacement for the self-defense test ship is needed to retain the capability to demonstrate surface ship cruise missile defense systems.
>
> Targets and threat representations. Generally, realistic targets are not available in sufficient numbers to support the various weapon systems under development. Representative targets for certain anti-ship cruise missile threats are not available. Deficiencies exist in the quantity and types of ballistic missile defense targets. Threat representation shortfalls have also been identified. Needs include a vector-scoring capability on full-scale targets and improved capability for testing infrared missile engagements.
>
> Realistic test environments. New-generation systems have much more extensive operating footprints than their predecessors and, therefore, need much larger test ranges to support full-scale operational scenarios. Space test capabilities are not sufficient to meet space mission area testing requirements. Shallow water ranges for undersea warfare testing are inadequate. Chemical and biological simulators and simulants are not representative of the threat. Generally, there is a lack of priority and funding for testing of weapon systems in the extremes of their natural operating environments.

> Interoperability. Interfaces with other systems are not included in many test plans. Many systems are tested only on an individual basis. The failure to test systems with complementary ones in combined scenarios precludes effective assessment of their compatibility and ability to operate together.

The committee believes that the increased funding levels for the CTEIP program and the test and evaluation investment and modernization accounts of the military services represent the minimum level needed to address the serious infrastructure problems identified in the Director's report. For this reason, the committee urges the Department to maintain these funding levels in future budget requests.

Uniform financial management system for Department of Defense test and evaluation facilities (sec. 234)

The committee recommends a provision that would require the Secretary of Defense to implement a single financial management and accounting system for all test and evaluation (T&E) facilities of the Department of Defense (DOD).

Section 907 of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 required the Secretary to develop a plan, including a schedule, for establishing a cost-based management information system for DOD laboratories and test and evaluation centers.

Despite this requirement, the annual report of the Director of Operational Test and Evaluation for fiscal year 2001 states that cost comparisons between the test and evaluation facilities of military services are difficult "because there is no common financial management system among the services." The Defense Science Board (DSB) Task Force on Test and Evaluation Capabilities strongly supports this conclusion in its December 2000 report, which states:

> The Task Force found each of the Services uses different financial management methods to manage the affairs of their facilities and recommends that DOD implement a common financial management methodology for all T&E facilities. * * *
>
> Consistent financial management practices would ease the problem of interservice range utilization and make it possible to determine the value of making changes in facilities usage. It would also facilitate more efficient operations. At present we cannot measure either input or output values. * * * Each service has a different financial management system for T&E.

The provision recommended by the committee would implement a recommendation of the DSB Task Force by requiring that the Secretary establish a common financial management methodology for all T&E facilities. The provision would require that the new T&E financial management and accounting system be consistent with the financial management enterprise architecture developed by the Secretary pursuant to section 1006.

One of the objectives of the new financial management methodology would be to enable the Department of Defense to track the total cost of test and evaluation activities. The committee recognizes that this total cost includes costs incurred by activities outside the test and evaluation facilities of the Department of Defense. The committee believes that the financial management enterprise architecture developed by the Department should enable the Department to track such costs.

Test and evaluation workforce improvements (sec. 235)

The committee recommends a provision that would require the Under Secretary of Defense for Acquisition, Technology and Logistics to develop a plan to ensure that the test and evaluation (T&E) workforce of the Department of Defense (DOD) is of sufficient size and has the expertise needed to ensure that the testing of DOD systems identifies issues of military suitability and effectiveness in a timely and accurate manner.

The Director of Operational Test and Evaluation stated in his annual report for fiscal year 2001:

> Infrastructure is not limited to facilities, but also includes people and processes. The DSB [Defense Science Board] Task Force learned that the issue of human resources—how to attract and retain personnel with the motivation and skill to serve and lead in civilian and military capacities—is one of the most significant concerns of the T&E community.
>
> The demographics of T&E show that a large fraction of its community will soon be eligible to retire. Further, the downsizing over the last ten years has all but precluded the recruiting of new talent. As a result, the relationships established by our T&E community over the years with universities and the hiring of graduates with skills in new research areas have suffered.

The provision recommended by the committee would implement one of the recommendations of the DSB Task Force on Test and Evaluation Capabilities by requiring the Department to develop a strategic plan for future human resource requirements of the DOD test and evaluation community. The plan would establish the number and qualifications of military and civilian personnel needed to properly staff the test and evaluation community of the Department of Defense and develop specific milestones for achieving a workforce with the desired composition.

The committee expects the Department to conduct a thorough review of the personnel system to identify any enhanced personnel flexibility that may be needed to attract and retain quality test and evaluation personnel. The committee notes that section 4308 of the National Defense Authorization Act for Fiscal Year 1996 authorized the Department to establish an acquisition workforce demonstration project. This authority, which enables the Department to waive certain regulatory requirements and to utilize pay-banding approaches such as those recommended by the Director of Operational Test and Evaluation in his annual report, has been utilized only on a small scale to date.